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*Ann-Ellice Parker*

Ann-Ellice Parker

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: MADHUKAR

Docket No.: AOL0116

Serial No.: 10/734,783

Art Unit: 2141

Filed: 12/12/2003

Examiner: Unknown

Title: MULIMEDIA SCHEDULER

SEPTEMBER 23, 2004

TRANSMITTAL FORM

Commissioner of Patents  
Mail Stop IDS  
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Alexandria, VA 22313-1450

Sir:

The following documents are being transmitted:

- IDS Transmittal (1 sheet);
- Information Disclosure Statement, (2 pgs) 1449 form (5 pgs)
- Cited References
- Return Postcard

Applicant believes that there is no fee due with this submission. However, the Commissioner is authorized to charge any additional fees that may be due and credit any overpayments to Deposit Account No. 07-1445 (Order No. AOL0116). A copy of this sheet is enclosed for accounting purposes.

Respectfully submitted,

Michael A. Glenn  
Reg. No. 30,176

Customer No. 22862



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Application of:** Madhukar, et al.

**Serial No. :** 10/734,783

**Filed:** December 12, 2003

**Title:** MULTIMEDIA SCHEDULER

**Docket No.:** AOL0116

**Art Unit:** 2141

**Examiner:** Unknown

Assistant Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

September 23, 2004

**INFORMATION DISCLOSURE STATEMENT**

Sir:

This Information Disclosure Statement is submitted:

☒ (X) under 37 CFR 1.97(b), or

(within three months of filing national application; or date of entry of international application; or before mailing date of first office action on the merits; whichever occurs last)

under 37 CFR 1.97(c) together with either a:

☐ ( ) Certification under 37 CFR 1.97(e), or

☐ ( ) a \$220.00 fee under 37 CFR 1.17(p), or

(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)

☐ ( ) under 37 CFR 1.97(d) together with a:

☐ ( ) Certification under 37 CFR 1.97(e), and

☐ ( ) a \$220.00 fee under 37 CFR 1.17(d)(2)(ii), and

☐ ( ) a \$130.00 petition fee set forth in 37 CFR 1.17(i)(1)

(Filed after final action or notice of allowance, whichever occurs first, but before payment of the issue fee)

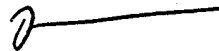
☒ (X) The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 07-1445 (Order No. AOL0116). A copy of this sheet is enclosed for accounting purposes.

☒ (X) Applicant(s) submit herewith Form PTO 1449 -- Information Disclosure Citation together with copies of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.25.

( ) A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individual(s) designated in 37 CFR 156(c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

Respectfully Submitted,



Michael Glenn  
Attorney For Applicant  
Reg. No. 30,176

Customer No. 22862



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Substitute for form 1449/PTO

*(Use as many sheets as necessary)*

Sheet	2	of	5
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**Complete if Known**

Application Number	10/734,783
Filing Date	12/12/2003
First Named Inventor	Madhukar et al.
Art Unit	2141
Examiner Name	Unknown
Attorney Docket Number	AOL0116

## U. S. PATENT DOCUMENTS

[illegible]

**FOREIGN PATENT DOCUMENTS**

[illegible]

Examiner  
Signature

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.**

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>	
		Application Number	10/734,783
		Filing Date	12/12/2003
		First Named Inventor	Madhukar et al.
		Art Unit	2141
		Examiner Name	Unknown
		Attorney Docket Number	AOL0116
Sheet	3	of	5

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	Z	NARASIMHA, R. et al. "I/O Issues in a Multimedia System"; Computer, Vol. 27, No.3, pg 69-74, March 1994, USA	
	A1	RAMAKRISHNAN, K.K. et al; "Operating system Support for a video-on-demand file service"; Multimedia Systems; Vol. 3, No. 2, Pg.53-65, 1995 West Germany	
	B1	NWOSU, K.C. et al "Data Allocation and Spatio-Temporal Implications for Video-on-Demand Systems"; Proceedings of 1995 14th Annual Phoenix Conference on Computers and Communications; (Cat. No.95CH35751) pg. 629-35; IEEE; 1995 USA	
	C1	EUN, S.; et al. "Nonpreemptive scheduling algorithms for multimedia communication in local area networks"; Proceedings 1995 Int'l Conf on Network Protocols (Cat. no.: 95TB8122) pg. 356-IEEE Comput. Soc. Press; 1995 Los Alamitos, CA USA 1996	
	D1	NAKAJIMA, T.; "A Dynamic QoS control based on Optimistic processor reservation"; Proceedings of the Intn'l onf. on Multimedia Computing and Systems (Cat. No.: 96TB100057) pg. 95-103 IEEE Comp. Soc. 1996 Los Alamitos CA	
	E1	Orji, C.U. et al; "Spatio-temporal effects of mutimedia objects storage delivery on video-on-demand systems"; Mutlimedia Sytems; vol. 5, no. 1, pg 39-52, Springer-Verlag; January 1997, Germany	
	F1	KENCHAMMANA-HOSEKOTE, D.R., et al.; "I/O scheduling for digital continuous media"; Mutlimedia Systems, vol. 5, no.4, pg 213-37, Springer-Verlag, July 1997 Germany	
	G1	MATSUI, Y et al.; "VoR: a network system framework for VBRT over reserved bandwidth"; Interactive Distributed Mutlimedia Systems and Telecommunications Services 4th Int'l Workshop IDMS '97 Proceedings; pg 189-98 Springer-Verlag; 1997	
	H1	LULING, R. et al.; "Communication Scheduling in a Distributed memory parallel interactive continuous media server system"; Proceedings of 1998 ICPP Workshop on Architectural systems and OS Support for Multimedia Applications Flexible	
	I1	SEONGBAE, E., et al; "A real-time scheduling algorithm for multimedia communication in samll dedicated multimedia systems"; KISS(A) (Computer Systems and Theory) vol 25 pg 5 pg492-502; Korea Inf. Sci. Soc; May 1998 South Korea 1999	

Examiner Signature		Date Considered	
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/734,783
Filing Date	12/12/2003
First Named Inventor	Madhukar, et al.
Art Unit	2141
Examiner Name	Unknown
Attorney Docket Number	AOL0116

Sheet

4

of

5

**OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	J1	GAROFALAKIS, M.N., et al. "Resource scheduling in enhanced pay-per-view continuous media databases"; Proceedings of 23rd Int'l Conf. on Very Large Databases"; pp 516-25; Morgan, Kaufman Publishers, 1997, San Francisco, CA USA	
	K1	MOSTEFAOUI, A.; "Exploiting data structures in a high performance video server for TV archives"; Proceedings of the Int'l Symposium on Digital Media information Base, pg 516-25, World Scientific, 1998 Singapore	
	L1	GAROFALAKIS, M.N., "On periodic resource scheduling for continuous media databases: VLDB Journal, Vol 7, no.4, pg 206-25; 1998 Springer Verlag, germany 1999	
	M1	HWEE-HWA, P., et al; "Resource scheduling in high performance multimedia server", IEEE, March-April 1999, USA	
	N1	YOUNG-UHG, L. et al, "Performance analysis and evaluation of allocating subbanded video data block on MZR disk arrays"; Proceedings of the High Performance Computing (HPC'98) pp 335-40, Soc for Comp Simulation Intn'l 1998, San Diego, CA, USA	
	O1	FENG, C. et al.; "An architecture of distributed media servers for supporting guaranteed QoS and media indexing", IEEE Intn'l Conf on Multimedia Computing and Systems, Part vol. 2 IEEE Comp. Soc. 2 vol. 1999 Los Alamitos, CA 1999	
	P1	TO, T.-P.J. et al "Dynamic optimization of readsize in hypermedia servers"; IEEE Intn'l Conf on Multimedia Computing and Systems; Part vol. 2, pg 486-91, Pub. IEEE Comput. Soc, 2 vol. 1999 Los Alamitos, CA USA	
	Q1	PANG, H. et al. "Resource scheduling in a high performance media server"; IEEE Transactions on Knowledge and Data Engineering", v11n2, pg 303-320, 1999	
	R1	LEE, W. et al., "QoS-adaptive bandwidth scheduling in continuous media streaming"; Information and Software Technology; v.44n, June 2002, pg 551-563	
	S1	WADDINGTON, D.G., "Resource partitioning in general purpose operating systems; experimental results in Windows NT"; Operating Systems Review, vol. 33, no4, pg52-74; ACM, October 1999, USA	

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		Examiner Name	Unknown
Sheet 5	of 5	Attorney Docket Number	AOL0116

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	T1	DITZE, M. et al. "A method for real-time scheduling and admission control of MPE 2 streams; PART 2000; 7th Australian Conference on Parallel and Real-Time Systems", Nov. 2000, Sydney, NSW, Australia, Pub: Springer-Verlag, Hong Kong, China 2001	
	U1	GAROFALAKIS, M., et al, "Competitive Online scheduling of continuous media streams", Journal of Computer and Systems Sciences; vol64, no2 pg 219-48, Academic Press, March 2002, USA	
	V1	WONJON, L. et al. ; "QoS-adaptive bandwidth scheduling in continuous media streaming" Dept of Computer Sci and Engr, Korea University, Seoul, South Korea; Information and Software Technology, vol 44, no9, pp551-53, Seoul, Korea	
	W1	MOURLAS, C.; "Deterministic scheduling of CBR and VBR media flows on parallel media servers", Euro-Par 2002 Parallel Processing 8th Intn'l Euro-Par Conference Proceedings; Vol 2400, pg 807-15, August 2002, Paderborn, Germany 2003	
	x1	BUFORD, J.F.; "Storage server requirements for delivery of hypermedia documents", Proceedings of the SPIE - The International Society for Optical Engineering Conference, Int. Soc. Opt. Eng. vol2417, pp 346-55, 1995	

Examiner Signature		Date Considered	
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